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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,848	08/18/2003	Paul J. Marganski	ATMI-644	4028
25559	7590	08/23/2005	EXAMINER	
ATMI, INC. 7 COMMERCE DRIVE DANBURY, CT 06810			SINES, BRIAN J	
			ART UNIT	PAPER NUMBER
			1743	

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



## Office Action Summary

Application No.

10/642,848

Applicant(s)

MARGANSKI ET AL.

Examiner

Brian J. Sines

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) 45, 46, 48 and 49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-44 and 47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_



## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of group I comprising claims 1 – 44 & 47 in the reply filed on 6/15/2005 is acknowledged. Claims 45, 46, 48 & 49 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

### ***Claim Objections***

Claims 7 & 20 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Regarding claim 7, claim 1 already recites “a radiation-transmissive protective film on an interior surface of said window” in part (i).

Regarding claim 20, claim 1 already recites “a colorimetric medium disposed in viewable relationship to said window” in part (ii).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

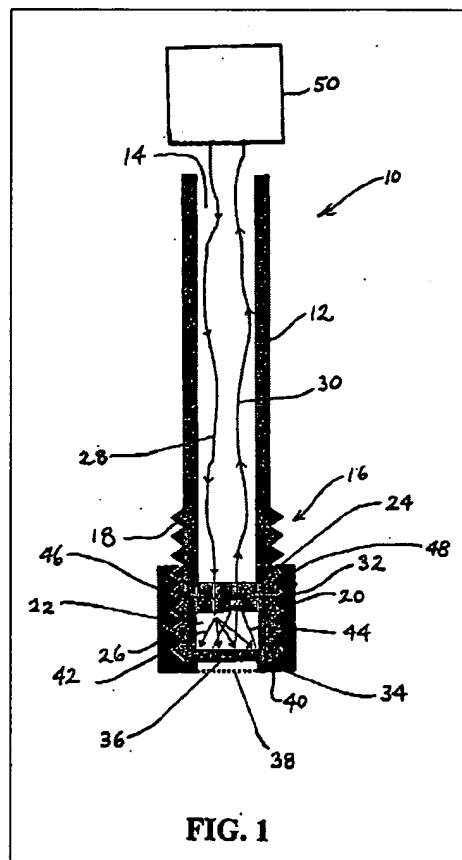
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.



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Claims 1 – 7, 9, 10, 12, 13, 19 – 21, 23 – 34, 36 – 38, 41, 42 & 47 are rejected under 35 U.S.C. 102(e) as being anticipated by Arno (U.S. Pat. Appl. Pub. No. US 2004/0252307 A1).

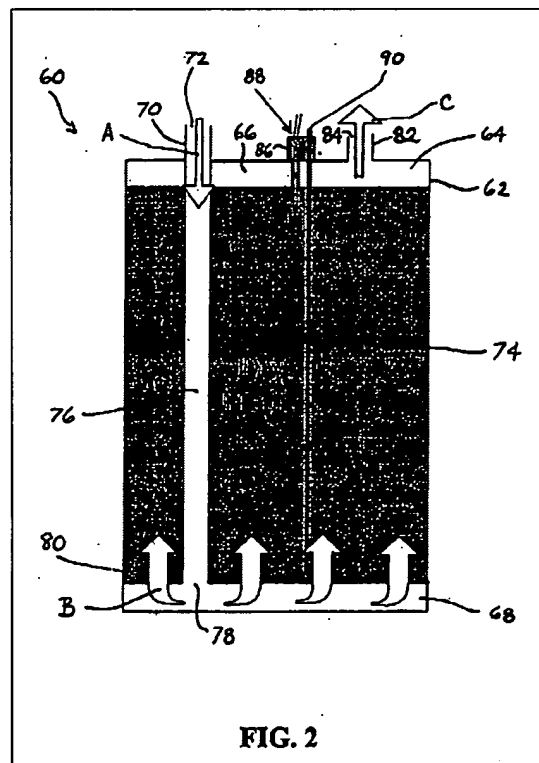
Regarding claims 1, 7, 20, 34, 36, 41 & 47, Arno teaches an apparatus (10) comprising: a protective film (e.g., protective mesh element 38) positioned on an interior surface of a window (34); and a colorimetric medium (element 36) (see paragraph 0035; figure 1). Arno further teaches the incorporation of processing circuitry (see paragraphs 0049 & 0054).



Claims 9, 10, 19, 26, 27, 36, 37 & 38 are considered functional limitations. Claims 2 – 4, 21 & 24 are considered intended use limitations. Absent any other positively recited structural limitations in the instant claims to delineate the structure of the claimed apparatus over the prior art apparatus, the recitation, for example, that the chamber is a “semiconductor manufacturing



chamber” or “reactor” is merely considered a statement pertaining as to how the chamber is intended to be utilized. Thus, the recited chamber still encompasses the chamber structure of the prior art. The Courts have held that a statement of intended use in an apparatus claim fails to distinguish over a prior art apparatus. See *In re Sinex*, 309 F.2d 488, 492, 135 USPQ 302, 305 (CCPA 1962). The Courts have held that apparatus claims must be structurally distinguishable from the prior art in terms of structure, not function. See *In re Danley*, 120 USPQ 528, 531 (CCPA 1959); and *Hewlett-Packard Co. V. Bausch and Lomb, Inc.*, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990). The Courts have held that the manner of operating an apparatus does not differentiate an apparatus claim from the prior art, if the prior art apparatus teaches all of the structural limitations of the claim. See *Ex Parte Masham*, 2 USPQ2d 1647 (BPAI 1987) (see MPEP § 2114).





Regarding claims 5 & 25, Arno teaches the incorporation of a scrubber unit (60) with the disclosed apparatus (see paragraph 0056; figure 2).

Regarding claims 6, 23, 26 & 27, Arno teaches the incorporation of dry scrubber material (dry media; 74) (see paragraphs 0056 & 0057; figure 2).

Claims 12 & 13 are considered product-by-process limitations. The patentability of a product or apparatus does not depend on its method of production or formation. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (see MPEP § 2113).

Regarding claims 28, 29 & 33, Arno teaches the incorporation of a colorimetric medium comprising a sheet or web article further comprising, e.g., iron oxide (see paragraph 0035).

Regarding claims 30 & 31, Arno teaches that the colorimetric medium can comprise a thin film directly coated onto a substrate comprising an optics window, which can comprise fused silica (see paragraphs 0046 & 0052).

Regarding claims 32 & 42, Arno teaches that the colorimetric medium may comprise an impregnated paper (see paragraph 0052).

Regarding claims 37 & 38, Arno teaches that the radiation generated can be in the visible, UV or IR spectral regime (see paragraph 0048).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person



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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claims 8, 11, 14, 39 & 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arno in view of Kulprathipanja et al. (U.S. Pat. No. 4,751,104) (hereinafter "Kulprathipanja").

Regarding claims 8, 11, 14, 39 & 40, Arno does not specifically teach the incorporation of a polymeric film. Arno does teach the suitability of gas selective membranes (see paragraph 0034). Kulprathipanja teaches gas selective membranes comprising silicone rubber and polysulfone having a thickness of about 3 mil (see Example 1). The Courts have held that the selection of a known material, which is based upon its suitability for the intended use, is within the ambit of one of ordinary skill in the art. See *In re Leshin*, 125 USPQ 416 (CCPA 1960) (see MPEP § 2144.07). Thus, it would have been obvious to a person of ordinary skill in the art to incorporate the use of a polymeric film as claimed with the disclosed apparatus.

2. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arno in view of Baker et al. (U.S. Pat. No. 6,572,679 B2) (hereinafter "Baker").

Regarding claim 15, Arno does not specifically teach the incorporation of a gel coating. Arno does teach the suitability of gas selective membranes (see paragraph 0034). Baker teaches a membrane incorporating a gel (see col. 14, lines 58 – 66). The Courts have held that the selection of a known material, which is based upon its suitability for the intended use, is within the ambit



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of one of ordinary skill in the art. See *In re Leshin*, 125 USPQ 416 (CCPA 1960) (see MPEP § 2144.07). Thus, it would have been obvious to a person of ordinary skill in the art to incorporate the use of a gel coating.

3. Claims 16 – 18, 35, 43 & 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arno.

Regarding claims 16 – 18, these claim recite various securement or bonding means, which are well known in the art (see MPEP 2144.03). Therefore, it would have been obvious to a person of ordinary skill in the art to incorporate a securement means for securing the film to the window of the disclosed apparatus.

Regarding claim 35, Arno teaches that the colorimetric medium may comprise an impregnated paper (see paragraph 0052). In addition, the use of cartridges with analytical devices are well known in the art. Therefore, it would have been obvious to a person of ordinary skill in the art to incorporate a porous impregnated paper disposed in a cartridge as claimed with the disclosed apparatus.

Regarding claims 43 & 44, as discussed above, Arno teaches all of the positively recited structure of the apparatus provided in the claimed method, which merely recites the conventional operation of that apparatus. Therefore, it would have been obvious to a person of ordinary skill in the art to perform the method recited in the instant claims upon the apparatus of Arno, as such is the intended operation of that apparatus.

4. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arno in view of Johnson et al. (U.S. Pat. No. 6,010,664 A) (hereinafter “Johnson”).



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Regarding claim 22, Arno does not specifically teach the incorporation of a wet scrubber. As evidenced by Johnson, the use of wet scrubbers with analytical apparatus are well known in the art (see col. 1, lines 45 – 50). Therefore, it would have been obvious to a person of ordinary skill in the art to incorporate the use of a wet scrubber with the disclosed analytical apparatus.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lee teaches a processing chamber.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Sines whose telephone number is (571) 272-1263. The examiner can normally be reached on Monday - Friday (11 AM - 8 PM EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

